2015 SANTANDER CONSUMER FINANCE KTM BRITISH JUNIOR CUP

CHAMPIONSHIP SPORTING and TECHNICAL REGULATIONS

[to be read in conjunction with the 2015 MCRCB YEARBOOK]

PLEASE NOTE:
The Promoter/Organiser reserve the right to issue amendments to this document from time to time.

Version 1

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Document Updates

Version	Date	Reason for change
1.0	01/03/15	First version of the document for 2015 season

1 The 2015 Santander Consumer Finance KTM British Junior Cup

1.1 Championship Organisation, Jurisdiction and Regulation

MotorSport Vision Racing ("MSVR") on behalf of KTM UK Limited is the Promoter ("Promoter") and Organiser ("Organiser") of the 2015 Santander Consumer Finance KTM British Junior Cup ("Championship").

The Championship is designated a British Cup by the Motorcycle Circuit Racing Control Board ("MCRCB"), the series Governing Body and accordingly will operate under its jurisdiction. The MCRCB Sporting Code, Judicial, General and Championship Regulations are published in the 2015 MCRCB Yearbook.

1.2 Rider Eligibility

To be eligible to enter a race in the Championship all riders must be registered riders with the Championship, hold the minimum of a 2015 Novice licence or above, issued by the ACU or the Scottish ACU. Riders for must be between 13 years of age and 18 years of age on 1 December 2014.

1.2.1 International Riders

Riders from outside of the EU must hold an International Licence issued by the FIM. All overseas riders (inc. Ireland) must have "start permission" from their FMNR to include personal accident insurance and repatriation insurance. The MCRCB and the Promoter/Organiser will not be held responsible for repatriation.

1.3 Registration and Entries

All riders must apply for race entries through MSVR who will publish race entry forms via www.bsbteams.com and timetables, final instructions etc. via www.msvracing.co.uk/bsb and administer race entries at each round of the Championship. The Promoter has the right at their absolute discretion to accept, reject, or withdraw any race entry for the Championship.

1.4 Championship Events

The Championship will consist of twenty races held over eight events during 2015:

ROUND	DATE	VENUE
1/2	4/5/6 April	Donington Park GP
3/4/5	17/18/19 April	Brands Hatch Indy
6/7	19/20/21 June	Snetterton 300
8/9/10/11	2/3/4 July	Knockhill
12/13/14	31 July, 1/2 August	Thruxton
15/16	21/22/23 August	Cadwell Park
17/18	4/5/6 September	Oulton Park
19/20	2/3/4 October	Silverstone GP

The Promoter/Organiser reserves the right to amend the championship calendar.

1.5 Championship Points and Leader board

Championship points will be awarded in accordance with the final race results of each race as published by the Race Organisers, and will be allocated as 25 points for a race win, then 20, 16, 13, 11, 10, 9, 8, 7, 6, 5, 4, 3, 2, 1 for all subsequent placings.

The Championship leader board will be managed by the Promoter using points awarded as above. All rounds will score towards the Championship leader board.

A separate autumn mini-series will also run over the final three events/six rounds as a forerunner to the 2016 Championship.

1.6 Prize Fund

1.6.1 Championship Prizes

The awards are as follows:
Overall 1st - Entry fees paid for the 2016 KTM RC 390 Cup (if appropriate)
Expensed entry to race in the first round of the US 2016 RC 390 Cup
Overall 2nd – £1000 plus £500 PowerWear voucher
Overall 3rd – £500 plus £500 PowerWear voucher
In addition, 2 riders from the top 6 at the end of the Chapionship (of appropriate status) will be chosen to go through into the Red Bull Rookies selection process for 2016

1.6.2 Event Prizes

At each event along with race trophies there will also be Metzeler supported tyre prizes awarded to the riders with the highest combined points scores from races at that round.
At each event there will be tyre prize awarded to the riders with the highest combined points scored from races at that round. In the event that riders are tied on points for 1st overall then 2nd and 3rd awards will be combined for the tied riders.

The tyre prizes will be awarded as follows:
1st overall - 1 x front & 1 x rear tyre
2nd overall - 1 x rear tyre
3rd overall - 1 x front tyre

2 Machine Specification

ANYTHING THAT IS NOT AUTHORISED AND PRESCRIBED IN THESE REGULATIONS IS STRICTLY FORBIDDEN.

The rules are intended to limit changes to the homologated production motorcycle in the interests of safety, power limitation, and to minimise racing costs.

It is intended that as the machine is delivered as a converted road model for use on a race track as supplied, that no changes are required and any replacement parts through wear or crash damage should be replaced by KTM standard parts or PowerParts. There is to be no modification or polishing to the standard parts, internal or external.

All items not mentioned in the following articles must remain as originally produced/supplied by KTM for the machine.

2.1 Machine Eligibility

The motorcycle eligible for the series is the KTM RC 390 Cup Edition with the following type approval numbers:

- **e1*2002/24*0646*00 RC390 (modified with PowerParts to Cup Edition level by KTM GmbH)**

The appearance from front, rear and the side profile of a series motorcycles must, except when otherwise stated, conform to the shape as originally produced by the manufacturer.

All motorcycles must display the manufacturers' vehicle identification number on the frame body (chassis number), with the exception of spare frames.

2.2 Displacement Capacity

The displacement capacity must remain as originally produced, for the 390: 373.2cc Modifying the bore and stroke is not allowed.

2.3 Power

RC 390 Cup Edition machines must not be making more **than 38bhp** DIN at the rear wheel when measured on a corrected dynamometer.

Furthermore, the Appendix 1 shows the power curve of a standard KTM RC 390 Cup test machine (herein known as the 'base curve') and it is expected that the power curve of all machines will be broadly following the same path and values as the base curve, with an exception for the 'flattening' of the emissions control at the 7,000 rpm point. Machines showing excessive power above this base curve will be investigated as will those showing unexpected peak power, maximum revs, or other differing values at points along the base curve.

Machines will be subject to regular and random dynometer checks at any time while at a Championship event.

2.4 Minimum Weight

The minimum weight will be 136kg. At any time during a Championship event, the weight of the whole machine (including the tank and its contents) must not be less than the minimum weight.

There is no tolerance on the minimum weight of the motorcycle.

In the final inspection at the end of the race, the checked machines will be weighed in the condition they were at the end of the race.

The established weight limit must be met in the condition the machine finished the race. Nothing can be added to the machine including water, oil, fuel or tyres.

2.5 Noise Limit

All machines must comply with MCRCB Technical Regulations. At practice or test sessions organised from time to time at circuits, outside of the championship, then the relevant circuit operation rules at the particular venue concerning noise limits will apply.

A series noise limit may be established, all teams will be notified of the noise limit in advance of the event.

2.6 Engine

2.6.1 Fuel Injection System

The injectors must remain standard units as on the homologated motorcycle.

Bell mouths must remain as originally produced by the manufacturer for the homologated machine.

No modification of fuel pumps or pressure regulator is allowed.

Throttle bodies must be standard units as on the homologated model.

Engine tick-over cannot be adjusted from standard setting.

The butterfly cannot be changed or modified.

2.6.2 Cylinder Head

No modifications are allowed. No material may be added or removed from the cylinder head through machining, polishing or any other means.

The valves, valve seats, guides, oil seals, shims, collets, rockers and rocker shaft must be as originally produced by the manufacturer for the homologated machine.

Only normal maintenance interventions as prescribed by the Manufacturer in the model's Service Manual are authorised.

2.6.3 Camshaft

No modifications are allowed.

2.6.4 Cam Sprockets or Gears

No dimensional modifications are allowed.

2.6.5 Cylinders

No modifications are allowed.

2.6.6 Pistons

No modifications are allowed, including polishing and lightening.

2.6.7 Piston Rings

No modifications are allowed.

2.6.8 Piston Pins and Clips

No modifications are allowed.

2.6.9 Crankshaft

No modifications are allowed, including polishing and lightening.

The flywheel must remain as originally produced by the manufacturer on the homologated machine.

2.6.10 Crankcase and all other Engine Cases (i.e. ignition case, clutch case, etc.)

No modifications to the crankcases are allowed, including painting, polishing and lightening.

2.6.11 Engine Case Secondary Covers

All lateral covers/engine cases containing oil and which could be in contact with the ground during a crash, must be protected by a second cover made from composite materials, type injection moulded nylon 6.6 long fibre 60%, carbon or Kevlar®, aluminium or steel plates and/or bars are also permitted. All these devices must be designed to be resistant against sudden shocks without shattering and must be fixed properly with bolts to the engine covers or affixed to the engine covers with Sikaflex® or SikaFast® automotive bonding adhesive.

No damaged cases will be permitted unless approved by the Chief Technical Officer.

2.7 Transmission and Gearbox

Modifications to gearbox or selector mechanism are not allowed.

Countershaft sprocket and rear wheel sprocket, may be changed.

2.8 Clutch

The original clutch assembly may not be modified.

2.9 Oil Pumps and Oil Lines

No pump modifications are allowed.

2.10 Radiator, Cooling System and Oil Coolers

Protective meshes may be added in front of the oil and/or water radiator(s).

The radiator tubes to and from the engine may be replaced, but the system must be maintained with its original tanks.

Radiator fan and wiring may be disconnected and removed. Thermal switches, water temperature sensor and thermostat may be removed inside the cooling system.

Radiator cap is free.

The only liquid engine coolants permitted other than lubricating oil shall be water. This is to avoid the use of oil-based substances which can be dangerous if spilt onto the circuit.

2.11 Air Box

The air box must remain as originally produced by the manufacturer on the homologated machine but the air box drains must be sealed.

All motorcycles must have a closed breather system. All the oil breather lines must be connected and discharge in the air box.

2.12 Fuel Supply

Quick connectors or dry-break quick connectors may be used.

Fuel vent lines may be replaced.

Fuel filters may be added.

Electric fuel pumps must be wired through a circuit cut-out which will operate automatically in the event of an accident.

2.13 Exhaust System

Silencers/end cans may be changed but the replacement must be KTM (Part Number 908.05.999.000)

The exhaust baffle in the Akrapovic silencer can be removed but sound level must not exceed series limits.

2.14 Electrics and Electronics

2.14.1 Engine Control Unit (ECU)

The standard engine control unit (ECU) must be used and must not be modified except for the standard Akrapovic KTM map which must be uploaded by a KTM dealer:
Any other means to perform any other electronic management function including traction control, throttle response control, real-time fuelling control (such as with an *Auto Tune* module), and/or the management and switching between multiple ECU software maps and/or fuel mixture maps while the machine is in motion during a Championship event is specifically prohibited.

The use of a software or hardware-based engine retarder/quickshifter is prohibited.

The Series Organiser reserves the right to unhindered access to any machine to verify and to reset or replace the ECU with a corresponding Standard Production or KTM ECU at any time at a Championship event. For the 2015 season MSV-R in association with KTM UK will be including tests of the electronic systems of the KTM RC 390 including, but not limited to, ensuring adherence to standard rev-limits and also tampering with the ECU unit by way of re-flashing, where that re-flashing is not to standard KTM ECU specification.

If replaced by the Promoter during a Championship Event, the replacement ECU will be on a like-for-like basis and the replaced ECU will not be returned to the competitor.

Spark plugs may be replaced.

2.14.2 Generator, Alternator, and Electric Starter

Generator, alternator, and their assembly must remain as originally produced by the manufacturer on the homologated machine. No modifications are allowed.

The electric starter must operate normally and always be able to start the engine during the event.

2.14.3 Additional Equipment

Additional electronic hardware equipment not on the original homologated motorcycle cannot be added (e.g. data acquisition, computers, recording equipment).

The addition of a device for infra red (IR) transmission of a signal between the racing rider and his team, to be used exclusively for lap timing, is allowed.

The addition of a GPS unit for lap timing/scoring purposes is allowed.

Telemetry or any other means to remotely determine machine settings while it is in motion during a Championship event is not allowed.

2.14.4 Wiring Loom

Modification or replacement of the wiring loom is not allowed, except that the wiring loom and the key/ignition lock may be relocated and unused wiring loom elements supplying current to direction indicators, horn, lights, etc may be unplugged and/or disconnected and removed.

Cutting of the wiring loom is not allowed.

2.14.5 Battery

The battery may be replaced. If replaced, its nominal capacity must be equal to or higher than the homologated type.

2.15 Rolling Chassis, Frame, and Body

2.15.1 Frame Body and Rear Sub-frame

The frame body must remain as originally produced by the manufacturer for the homologated machine.

Nothing may be added by welding or removed by machining from the frame.

Engine mounting brackets or plates must remain as originally produced by the manufacturer for the homologated machine.

The paint scheme of the frame body and sub-frames must remain as standard,

2.15.2 Front Forks
The front fork structure (spindle, stanchions, bridges, stem, etc.) must remain as originally produced by the manufacturer for the homologated machine.

Standard original internal parts of the front forks may be modified.

Any quality and quantity of oil may be used in the front forks.

The height and position of the front fork in relation to the fork crowns is free.

The upper and lower front fork clamps (triple clamp, fork bridges) must remain as originally produced by the manufacturer on the homologated machine.

No aftermarket or prototype electronically-controlled suspension parts may be used.

2.15.3 Rear Fork
Every part of the rear fork (swing arm) must remain as originally produced by the manufacturer for the homologated machine, including rear fork pivot bolt and rear axle adjuster.

The Rear Swing arm may have a composite protection guard fitted.

Rear wheel stand/paddock stand support brackets may be added to the rear fork by welding or by bolts. Brackets must have rounded edges with a large radius viewed from all sides. Fastening screws must be recessed.

2.15.4 Chain Guard
It is compulsory to fit a chain guard made from rigid plastic, metal, or carbon fibre material, fitted and located in such a way to prevent trapping between the lower chain run and the final driven sprocket at the rear wheel.

2.15.5 Rear Suspension Unit
The rear suspension unit (shock absorber) must be retained.

Rear suspension unit spring may be changed.

No aftermarket or prototype electronically-controlled suspension unit may be used.

2.15.6 Rear Ride Height Adjuster
The rear suspension tie rod may be changed for an adjustable type, but the rocker arm must remain as originally produced by the manufacturer for the homologated machine.

2.15.7 Wheels
Wheels must remain as originally produced by the manufacturer for the homologated machine and must remain orange. If the original design included a cushion drive for the rear wheel, it must remain as originally produced for the homologated machine.

No modifications of the wheel axles or any fixing and mounting points for front brake calliper are authorised.

Spacers may be modified. Modifications to the wheels to keep spacers in place are permitted.

Wheel balance weights may be discarded, changed or added to.

Any inner tube (if fitted) or inflation valves may be used.

2.15.8 Brakes
Brake disks cannot be replaced.

The rear brake calliper, including mount, carrier, and hanger, must remain as originally produced by the manufacturer for the homologated machine.

Front and rear brake master cylinder must remain as originally produced by the manufacturer for the homologated machine.

Front and rear hydraulic brake lines may be changed.

Dry-break connectors in the brake lines are permitted.

Front and rear brake pads may be changed. Brake pad locking pins may be modified for quick-change type. Additional air scoops or ducts are not allowed.

2.15.9 Handle Bars and Hand Controls
Handle bars must remain as standard.

Throttle controls must be self-closing when not held by the hand.

Throttle assembly and associated cables may be modified or replaced.

Clutch and brake lever must be replaced by original equipment KTM PowerParts items.

Electric starter switch and engine stop switch must be located on the handle bars.

2.15.10 Foot Rest and Foot Controls
Foot rest and foot controls may not be changed from those fitted as original equipment on RC 390 Cup
Rigid footrests must have an end (plug) which is permanently fixed, made of aluminium, plastic, Teflon® or an equivalent type material, with a minimum radius 8 mm. The plug surface must be designed to reach the widest possible area.

No additional switched controls are permitted.

2.15.11 Fuel Tank
Fuel tanks must be completely filled with a fire retardant, open-celled mesh material (i.e. Explosafe).

Fuel tank valve petcock must remain as originally produced by the manufacturer for the homologated machine.

The sides of the fuel tank may be covered by a protective part made of a composite material. These protectors must fit the shape of the fuel tank.

Fuel tanks with tank breather pipes must be fitted with non-return valves that discharge into a catch tank with a minimum volume of 250cc made of a suitable material.

2.15.12 Fairing and Body work
Fairing and body work must be replaced by KTM original parts as fitted to the RC 390 Cup

a) The lower fairing has to be constructed to hold, in case of an engine breakdown, at least half of the total oil and engine coolant capacity used in the engine (minimum 5 litres) as supplied on KTM RC 390 Cup Edition (905.08.920.044).

b) The Promoter recognises the right of each Competitor to determine the look of their machine, but the overall appearance and a high level of presentation of the machine must be in keeping with the homologated machine and other road and racing machines manufactured by the Promoter. Competitors are to use best efforts to maintain their machines in this condition throughout the whole Championship and the Promoter reserves the right to request Competitors to comply with this sentiment.

2.15.13 Number Plate Colours
The background colours and figures (numbers) for the series are white background with black numbers. Race numbers will be supplied with series and sponsorship logo packs.

The allocated number (& plate) for the rider must be affixed on the machine as follows:

- once on the front, in the centre of the fairing;
- once on each side of the motorcycle so they can be clearly seen by marshals and the public. For guidance purposes, the side numbers should not be affixed to the rear seat unit since this position is not clearly visible.

2.15.14 Series and Sponsorship Logos
Each competing motorcycle to prominently display series and sponsor/technical partner logos as supplied and directed by the Promoter, this being as per the following images

Each entrant undertakes to ensure that no competitive marketing materials to those of any series sponsor shall be displayed on machines or riders competing in the Championship at any time.

2.15.15 Seat
The appearance from both front rear and profile must conform to the homologated shape.

Seat, seat base and associated bodywork may not be replaced except by KTM PowerParts (part number 905.08.918.044).

2.15.16 Fasteners
Standard fasteners may be replaced with fasteners of any material and design but titanium fasteners may not be used. The strength and design must be equal to or exceed the strength of the standard fastener it is replacing.

Fasteners may be drilled for safety wire, but intentional weights saving modifications are not allowed.

Fairing/bodywork fasteners may be changed to the quick disconnect type.

Aluminium fasteners may only be used in non-structural locations.

2.16 Fuel, Oil, and Coolants

2.16.1 Fuel
The official control fuel of the series will be 'Panta RUL4t', as supplied by the official fuel service provider WP Group. At all rounds organised under the jurisdiction of MSVR, all engines must function on Panta RUL4t. All

fuel used in free practices, qualifying practices, warm-ups and races at each of these rounds must be the control fuel as supplied by the official fuel service provider.

2.16.2 Fuel Service Provider
The Promoter has appointed WP Group as the official supplier of racing fuels and only the designated fuel may be used in official practices and races.

2.16.3 Oil and Lubricants
Al oil and lubricants must comply with the MCRCB Regulations.

2.16.4 Other Liquids
All other liquids/consumables must comply with the MCRCB Regulations.

2.17 Tyres
The official tyre supplier to the series will be Metzeler, via the tyre service provider Competition Logistics Ltd.

All tyres used in the free practices, qualifying practices, warm-up and races at each of the eight rounds must be supplied by the official supplier and display a coded marking that will be supplied to the rider at each event. The marking will show an identification number for each rider and it may have a different colour depending on whether it is applied to the front or rear tyre. The markings must be applied to the right sidewall of the tyre. Personnel nominated by the Race Director will check that all the motorcycles in the pit lane are fitted with tyres carrying the markings.

The use of motorcycles with unmarked tyres (e.g. without the official markings) will be immediately reported to the Race Director/Clerk of the Course who will take appropriate action.

In exceptional cases, should the marking be damaged or applied in the wrong way, up to 1 extra official marking may be provided at the sole discretion of the Tyre Control Official and applied.

The rider may use a maximum of two sets of tyres for each event.

Any modification or treatment (cutting, grooving) is forbidden.

The use of tyre warmers is allowed.

After delivery of the tyres, the teams will be responsible for their safekeeping and use.

No tyre change is permitted during a race in a Red Flag interruption (including a race interrupted with less than 3 laps of its duration completed by the leader). In the event of a tyre change authorised by the Chief Technical Official in the case of a proven tyre failure, the rider must start the re-start from the back of the grid or the pit lane exit.

Any other unauthorised tyre change will result in a penalty. During practices or warm up new tyres may be supplied to a machine involved in a crash, only if the request has been received when the machine is still in the parc fermé and the Official Supplier certifies that the tyre(s) is(are) damaged and unsafe.

2.17.1 Dry Tyres
The tyres available for use will be:

Front: 110/70 R17 Metzeler Sportec M7RR

Rear: 150/60 R17 Metzeler Sportec M7RR

2.17.2 Tyre Service Provider
Series competitors will be required to register their details with the tyre service provider prior to the start of the season:

Competition Logistics Ltd, 01332 695258, www.complog.co.uk

2.18 The following items MAY be altered or replaced
Any type of lubrication, brake or suspension fluid may be used.

Gaskets and gasket materials (with the exception of cylinder base gasket).

Instrument bracket(s) and associated cables.

It is recommended that machines be equipped with a red light on the instrument panel. This light must flash in the event of oil pressure drop.

2.19 RAIN LIGHT

All motorcycles must have a functioning red light mounted at the rear of the machine, as supplied as standard on RC 390 Cup Edition, to be used in rain or low visibility conditions as instructed by Race Control. The team must ensure that the light is switched on whenever a rain tyre is fitted on the motorcycle and/or when any practice or race is declared “wet” by Race Control.

Appendix 1: KTM RC390 Curve – Reference